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PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Whitehead, William Atty. Docket: 85939.000189
Serial No.: 09/837,039 Examiner: Gregory J. Strimbu
Filed: April 18, 2001 Art Unit: 3634
Title: ILLUMINATING WEATHERSEAL

Declaration of Prior Invention in the United States to Overcome Cited Patent

Pursuant to 37 C.F.R. §1.131

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

I, William Whitehead, the sole named inventor on the above-referenced application hereby declare as follows:

1. This Declaration is to establish the conception of the invention of this application in the United States at a date prior to March 8, 2001, which is the effective date of US Patent No. 6,471,381, as cited by the examiner, and due diligence from a date prior to the effective date to a constructive reduction to practice by filing the present application.

2. I am the sole inventor of the present application.

3. To establish the date of completion of the invention of this application, the following attached documents are submitted as evidence:

(a) Three pages of redacted drawings from an internal Invention Disclosure form of the assignee of the present application. Each of these three pages was signed and dated by two witnesses, Marion A. Royse and A. John Rigby, as well as myself prior to March 8, 2001;

(b) A redacted copy of four pages of an Invention Disclosure accompanying the three drawing sheets is attached. The Invention Disclosure was signed and dated by two witnesses, Marion A. Royse and A. John Rigby, as well as myself prior to March 8, 2001.

4. All activity establishing the date of invention occurred in the US.
5. Just prior to March 8, 2001 through April 18, 2001, at least three drafts of the present application were exchanged between patent counsel and myself. Specifically, separate drafts were discussed March 7, 2001, March 28, 2001, and April 17, 2001.
6. Diligent efforts were made from prior to March 8, 2001 through April 18, 2001, the filing date of the present application. These efforts included drafting of the present application by counsel, review and analysis of each revision by myself, and conferences with counsel on the revisions. Each of these activities occurred in the 31 days between predating the effective date of the '381 patent and the filing date of the present application.
7. From these documents it can be seen that the conception of the invention in this application was at least as early as March 7, 2001, which is a date earlier than the effective date of the reference.
8. The attached drawings, the Invention Disclosure and this declaration establish that the following limitations were conceived prior to March 8, 2001 and through due diligence were constructively reduced to practice on April 18, 2001:
 - (i) A vehicular weatherseal for sealing a gap intermediate a first confronting surface and a second confronting surface, the first and the second confronting surfaces moveable between a spaced apart open position and an adjacent closed position, the vehicular weatherseal, comprising: an elongate polymeric body selected to attach to the first confronting surface, the polymeric body including a sealing portion, the sealing portion and the elongate polymeric body being monolithic, and the sealing portion adapted to be spaced from the second confronting surface in the spaced apart open position of the confronting surfaces and the sealing portion adapted to contact the second confronting surface in the adjacent closed position of the confronting surfaces; and a light generating line connected to the elongate polymeric body and extending along a longitudinal dimension of the elongate polymeric body for generating and emitting light.
 - (ii) Further configurations disclosed include a light line that generates or emits light or both; the elongate polymeric body includes a carrier portion; the carrier portion includes a reinforcing member; the reinforcing member being a metal or a thermoplastic; the light generating line including one of a fiber optic, a light emitting diode and an incandescent element; the fiber optic being one of a glass or a plastic; and the fiber optic light line including a pair of fiber optics.
 - (iii) A vehicular weatherseal assembly for sealing against a first confronting surface, the first confronting surface moveable relative to the weatherseal assembly between a spaced apart open position and an adjacent closed position, the vehicular

weatherseal assembly, comprising: a weatherseal body having a longitudinal dimension, and a hollow bulb shaped sealing portion projecting from the weatherseal body and sized to contact the first confronting surface in the closed position; and a fiber optic light line connected to the weatherseal body for emitting light along a portion of the longitudinal dimension.

(iv) An illuminating vehicular weatherseal assembly for engaging a vehicle flange, the flange including a pair of spaced parallel flange surfaces, the assembly comprising: a weatherseal body having a U shaped flange engaging portion sized to cooperatively engage the pair of spaced parallel flange surfaces and; a light generating line extending along a longitudinal dimension of the weatherseal body for generating and emitting light.

(v) A vehicular weatherseal for sealing a gap intermediate a first confronting surface and a second confronting surface, the first and the second confronting surfaces moveable between a spaced apart open position and an adjacent closed position, the vehicular weatherseal, comprising: an elongate polymeric body selected to attach to the first confronting surface, the elongate polymeric body including a hollow bulb shaped sealing portion projecting from the elongate polymeric body and adapted to be spaced from the second confronting surface in the spaced apart open position of the confronting surfaces and the sealing portion adapted to contact the second confronting surface in the adjacent closed position of the confronting surfaces; and a light transmitting line connected to the elongate polymeric body and extending along a longitudinal dimension of the elongate polymeric body for transmitting light along a length of the light transmitting line.

(vi) A vehicular weatherseal assembly for engaging a vehicle flange, the flange including a pair of spaced parallel flange surfaces, the assembly comprising: a weatherseal body having a U shaped flange engaging portion sized to cooperatively engage the pair of spaced parallel flange surfaces and; a light transmitting line extending along a longitudinal dimension of the weatherseal body for transmitting light.

(vii) A vehicular weatherseal for sealing a gap intermediate a first and a second confronting surface, the first and second confronting surfaces moveable between a spaced apart open position and an adjacent closed position, the vehicular weatherseal comprising: an elongate polymeric body selected to attach to the first confronting surface, the elongate polymeric body including a sealing portion, the elongate polymeric body and the sealing portion being monolithic, the sealing portion adapted to be spaced from the second confronting surface in the spaced apart open position of the confronting surfaces and the sealing portion adapted to contact the second confronting surface in the adjacent closed position of the confronting surfaces; and a light transmitting line connected to the elongate polymeric body, the light transmitting line transmitting light along a length of the light transmitting line.

(viii) A vehicular weatherseal for sealing a gap intermediate a first and a second confronting surface, the first and second confronting surfaces moveable between a spaced apart open position and an adjacent closed position, the weatherseal, comprising: an elongate polymeric body selected to attach to the first confronting surface, the elongate

polymeric body including a hollow bulb shaped sealing portion extending from the elongate polymeric body and adapted to be spaced from the second confronting surface in the spaced apart open position of the confronting surfaces and the sealing portion adapted to contact the second confronting surface in the adjacent closed position of the confronting surfaces; and a light generating line connected to a length of the elongate polymeric body for generating and emitting light.

(ix) A vehicular weatherseal, wherein the elongate polymeric body includes at least one of a plastic, thermoplastic, thermosetting, thermoplastic elastomer, ethylene-propylene-diene-monomer, ethylene vinyl acetate, polyvinyl chloride, and polypropylene.

9. I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States code, and that such willful false statements may jeopardize the validity of the application and any patent issued thereon.

May 1st, 2003
Date


William Whitehead

*Sworn to before me this 1st
day of May, 2003.*

Brenda S. Underwood
Notary Public



INVENTION DISCLOSURE/RECORD OF INVENTION		PATENT DEPARTMENT CASE NO. BTR-051	
SUBSIDIARY OR DIVISION		ADDRESS	
Metzeler Automotive Profile Systems Technical Center formerly, BTR Automotive		2200 Stock Creek Blvd. Rockford, TN 37853	

1. INVENTORS	A	INVENTOR (NAME IN FULL) William Whitehead	TEL. NO. 865-981-7377	FAX NO. 865-573-0786
	ADDRESS (STREET AND NUMBER) 149 Ramsey Road Maryville, TN 37801			
	B	INVENTOR (NAME IN FULL)	TEL. NO.	FAX NO.
	ADDRESS (STREET AND NUMBER)			
C	INVENTOR (NAME IN FULL)	TEL. NO.	FAX NO.	
ADDRESS (STREET AND NUMBER)				

2. TITLE OF INVENTION	Combination of lighting and weather seal technologies.
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3. PURPOSE OF INVENTION	Improved visibility and safety in and around the vehicle by full or partial illumination of door openings, storage compartments and engine compartments.
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4. CONCEPTION DATE	DATE RECORDED (WHERE, WHEN, HOW) Personal hand written notes and meeting minutes of Technical Center project review. (See Attachment)
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5. FIRST DRAWING DATE (IF ANY)	DATE MADE (WHERE, WHEN, HOW) Metzeler Technical Center using Auto Cad software
	PRESENT LOCATION OF DRAWING (SUBMIT COPY) Technical Center network drive labeled

BTR Automotive

Sealing Systems Group

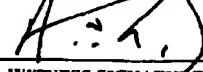
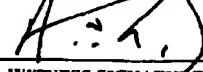
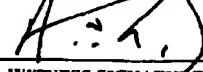
6. FIRST WRITTEN DESCRIPTION (IF OTHER THAN THIS DISCLOSURE)	DATE	TYPE OF DESCRIPTION (LAB NOTEBOOK, MEMO, ETC.)	
	PRESENT LOCATION OF DESCRIPTION (INCLUDE ANY LAB NOTEBOOK NUMBERS)		
7. DATE OF FIRST DISCLOSURE (ORAL OR WRITTEN)	DATE	TO WHOM DISCLOSED	TELEPHONE
	DATE	TO WHOM DISCLOSED	TELEPHONE
8. FIRST TEST OF PRODUCT, PROCESS OR EQUIPMENT GIVE DATES AND LOCATION OF RECORDS OF ANY LABORATORY OR PLANT SCALE WORK WHICH HAS BEEN DONE TO PROVE OPERATIVENESS AND SUBMIT PHOTOGRAPHS, PHOTOCOPIES, AND OTHER DOCUMENTATION.	DATE OF TEST	LOCATION OF DATA	
	NAMES OF WITNESSES TO ABOVE		TELEPHONE
9. DETAILED DESCRIPTION OF INVENTION PLEASE USE ADDITIONAL SHEETS AS NECESSARY TO COMPLETE THIS SECTION. DRAWINGS ILLUSTRATING THE INVENTION SHOULD BE SUBMITTED. WHEN MORE THAN ONE DRAWING IS USED, THE DRAWINGS SHOULD BE NUMBERED AND REFERRED TO BY NUMBER IN THE WRITTEN DESCRIPTION. DRAWINGS SHOULD BE SIGNED BY INVENTOR, DATED, AND WITNESSED. THREE COPIES OF EACH DRAWING SHOULD BE SUBMITTED WITH THIS DISCLOSURE.	<p>The Bright Seal's concept is the combination of lighting technology (1) and sealing technology (2) to provide improved visibility and safety on passenger vehicles. This is accomplished through the attachment of fiber optic lighting (1) or rope lighting (1) to plastic and/or rubber weather seals (2). See drawings A, B, and C.</p> <p>A cavity or pocket (3) is designed into or attached to the weather seal (2) for purposes of holding and positioning the light source (1) securely in place. The weather seals (2) serves as the mounting fixture for the light source (1), which results in partial or full perimeter illumination of the compartment opening. Cavity (3) designs and physical characteristics of the lighting source (1) may vary depending on the application.</p> <p>The design also provides for easy replacement of the light source.</p> <p>The light source is powered and controlled by the vehicle electrical system.</p>		

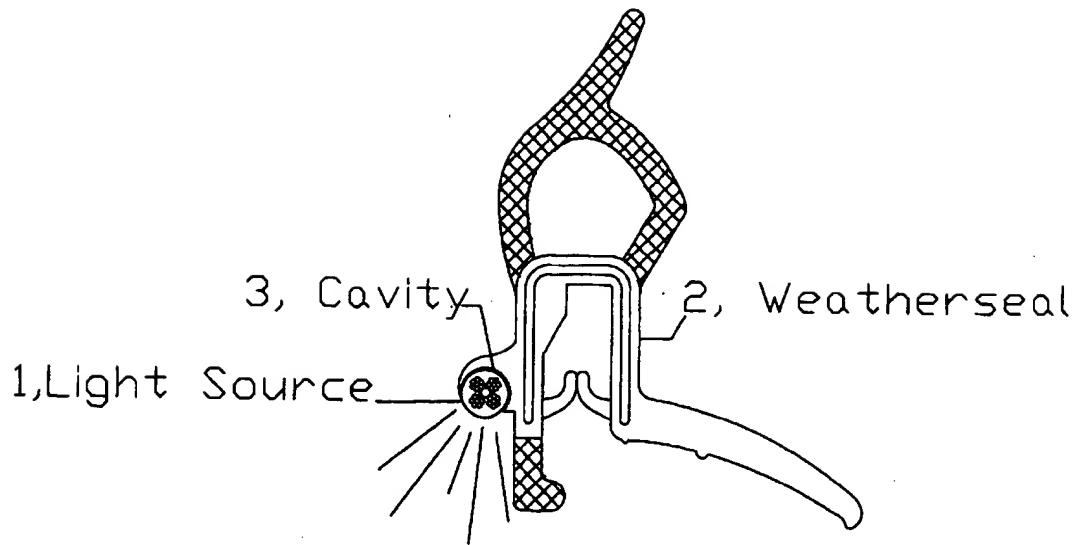
BTR Automotive

Sealing Systems Group

10. EXPECTED SCOPE OF INVENTION STATE THE RANGE AND PREFERRED VALUES OF ALL VARIABLES SUCH AS TEMPERATURE, TIME, PRESSURE, MATERIALS, WEIGHT, SIZE, WIDTH, HEIGHT, THICKNESS, DENSITY, ETC.	Location of the Lighting source (1) could be any place on the weather seal (2). Preferred location would be on the carrier. One or more wires could be used to activate the system.
11. UTILITY OF INVENTION STATE HOW, WHERE AND TO WHAT EXTENT THIS INVENTION CAN BE USEFULLY APPLIED.	May be used in transportation or architectural sealing applications to improve illumination, visibility and safety conditions.
12. NOVEL FEATURES OF INVENTION LIST KNOWN PRIOR ART INCLUDING PRODUCTS, PATENTS AND LITERATURE REFERENCES. STATE DISTINCTION BETWEEN THIS INVENTION AND THE KNOWN PRIOR ART.	I am not aware of fiber optics or any other lighting method being used in combination with weather seals.
13. NON-OBVIOUSNESS OF INVENTION STATE HOW AND TO WHAT EXTENT NOVEL FEATURES ARE AN ADVANTAGE AND ARE NOT OBVIOUS TO OTHERS SKILLED IN THE ART.	Improved visibility and safety for the consumer. To our knowledge lighting has not been used on weather seals.



14. FURTHER EXPLORATORY OR DEVELOPMENT WORK NEEDED. INCLUDE COST ESTIMATE	Further development is required to produce the concept design. Product may be assembled or joined together using extrusion technology, molding technology, and combining technology or hand assembly. Development cost unknown																																																
15. COMPETITIVE CONSIDERATIONS HOW CAN WE PREVENT OUR COMPETITORS FROM CIRCUMVENTING THIS INVENTION?	Must cover system activation by capacitive, pressure or contact switch. Must also cover all lighting means such as direct current, alternating current, and fiber optics or rope lighting.																																																
16. IMPORTANT SIGNATURES OF INVENTORS AND WITNESSES WITNESSES SHOULD UNDERSTAND THE TECHNICAL SUBJECT MATTER OF THE INVENTION.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center; vertical-align: top;">A</td> <td style="width: 40%;">INVENTOR SIGNATURE</td> <td style="width: 20%;">TEL. NO.</td> <td style="width: 20%;">DATE</td> </tr> <tr> <td></td> <td></td> <td>865-981-7377</td> <td></td> </tr> <tr> <td></td> <td>WITNESS SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td></td> <td>865-981-7309</td> <td></td> </tr> <tr> <td></td> <td>WITNESS SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td></td> <td>865-981-7318</td> <td></td> </tr> <tr> <td style="text-align: center; vertical-align: top;">B</td> <td>INVENTOR SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td>WITNESS SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td>WITNESS SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td style="text-align: center; vertical-align: top;">C</td> <td>INVENTOR SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td>WITNESS SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> <tr> <td></td> <td>WITNESS SIGNATURE</td> <td>TEL. NO.</td> <td>DATE</td> </tr> </table>	A	INVENTOR SIGNATURE	TEL. NO.	DATE			865-981-7377			WITNESS SIGNATURE	TEL. NO.	DATE			865-981-7309			WITNESS SIGNATURE	TEL. NO.	DATE			865-981-7318		B	INVENTOR SIGNATURE	TEL. NO.	DATE		WITNESS SIGNATURE	TEL. NO.	DATE		WITNESS SIGNATURE	TEL. NO.	DATE	C	INVENTOR SIGNATURE	TEL. NO.	DATE		WITNESS SIGNATURE	TEL. NO.	DATE		WITNESS SIGNATURE	TEL. NO.	DATE
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Typical Decklid Seal Drawing "A"

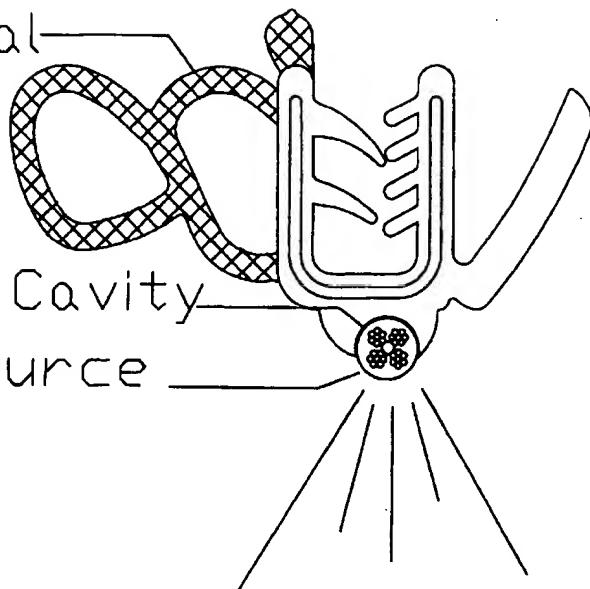
Inventor John W. Roye Date

Witness A. S. Date

Witness Maria Roye Date



2, Weatherseal



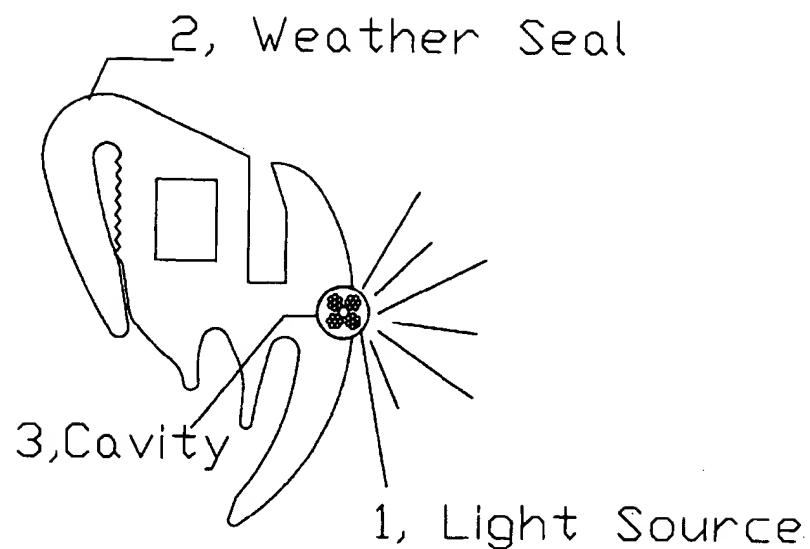
1, Light Source

Typical Doorseal Drawing "B"

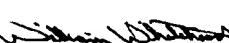
Inventor John W. Johnson Date

Witness A. J. L. Date

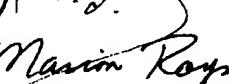
Witness Marvin Raye Date



Typical Backlite Seal Drawing "C"

Inventory  Date

Witness  Date

Witness  Date